

**REMARKS:**

In the outstanding Office Action, the Examiner allowed claims 6-11 and rejected claims 1-5 and 12-24. Claims 1, 3, 5, 12-17 are amended herein. No new matter is presented. Thus, claims 1-24 are pending and under consideration. The rejections are traversed below.

**ALLOWED CLAIMS:**

At item 5 of the outstanding Office Action, the Examiner indicated that claims 6-11 are allowed.

**OBJECTION TO CLAIMS:**

At item 1 of the outstanding Office Action, the Examiner objected to claims 3 and 5 due to informalities. Claims 3 and 5 are amended herein.

Therefore, withdrawal of the objection is respectfully requested.

**REJECTION UNDER 35 U.S.C. § 103(a):**

Claims 1-5, 12-17 and 18 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Publication No. 2002/0015200 (Jennings), in view of U.S. Patent No. 5,995,254 (Koga) and further in view of U.S. Patent No. 6,879,619 (Green).

The Examiner maintains the comparison of the Jennings method of monitoring optical links with the present invention. However, Jennings loops back a signal of  $\lambda 1$  to an input of WDM (130) via loopback link (132) and generates an optical signal of wavelength  $\lambda 3$  that is fed to another input of WDM 130 (see, paragraph 16 and FIG. 2). That is, Jennings is limited to monitoring optical links (106 and 108) by passing the looped back  $\lambda 1$  signal via the monitoring shelf unit (122) (see, paragraph 18). For example, based on the received  $\lambda 1$  signal, the monitoring shelf unit (122) can detect signal degradation with respect to optical links (106 and 108) while the optical signal of  $\lambda 3$  from a customer equipment is simply routed to a receiver (104) (see, paragraph 18 and FIG. 2)

The Examiner relies on Koga as teaching a specific wavelength for an up data signal. Koga, similar to Jennings, is limited to monitoring a transmission line and maintains multiplexed signals ( $\lambda 1$  and  $\lambda 2$ ) until receipt of the signals via receiving sections (see, FIG. 2 and corresponding text).

The Examiner also relies on Green as teaching a passive multiplexer and demultiplexer. However, the effective date of Green as a reference is July 27, 1999, which is **after** the filing

date of JP 11-042290 to which priority has been claimed. Applicants respectfully assert that Green is not prior art, and thus, the combination rejection fails and must be withdrawn. The certified copies of 11-042290 was filed November 16, 1999 when the present application was filed. In accordance with 37 C.F.R. §1.55(a)(4), English language translations of the Japanese Patent Applications are submitted herewith.

The present invention monitors a fault and a location thereof using an examination signal with a second wavelength to determine whether the fault occurs in a transmission line and/or in an apparatus connected with the transmission line.

Independent claim 1, by way of example, recites that the monitoring unit "monitors a fault and a location of said fault by using said examination signal with the second wavelength" and "determines whether said fault occurs in the transmission line and/or in the apparatus connected with the transmission line". Claim 1 also recites, "said first optical coupling unit, said first optical dividing unit, said second optical coupling unit and said second optical dividing unit are formed of passive elements that are operable without a power supply."

Similarly, claims 12-17 also recite, "determining whether said fault occurs in the transmission line and/or in the apparatus connected with the transmission line", where "the coupling and demultiplexing operations are performed using a unit formed of passive elements that are operable without a power supply" ("dividing" and "separating" in claims 13 and 14).

Independent claim 18 recites, "dividing a first coupled signal having a down data signal of a first wavelength and an examination signal of a second wavelength" and "separately returning the examination signal of the second wavelength and at least a portion of the down data signal of the first wavelength." The claimed method of monitoring a transmission line in claim 18 includes, "inserting the returned portion of the down data signal into an up data signal with a first wavelength."

The cited references, alone or in combination, do not teach or suggest the above-discussed features of the independent claims.

It is submitted that the independent claims are patentable over the cited references.

For at least the above-mentioned reasons, claims depending from the independent claims are patentably distinguishable over the cited references. The dependent claims are also independently patentable. For example, as recited in claim 5, "an examination signal generator which divides an input down data signal into two signals, one signal being converted into said

down data signal with the first wavelength, the other signal being converted into said examination signal with the second wavelength." The cited references, alone or in combination, do not teach or suggest these features of claim 5.

Therefore, withdrawal of the rejection is respectfully requested.

**CONCLUSION:**

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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12/27/15

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